

It is comparatively easy to correct these regenerators in a manner which will cause them to work better. Fig. 55 shows the

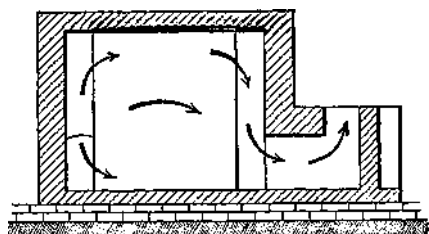
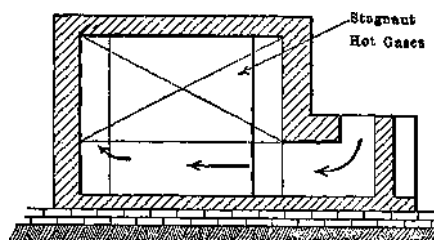


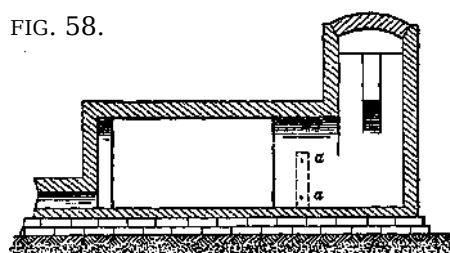
FIG. 56.



gases of chamber. will the

FIG. 57. The checkers designed by Dalen (a well-known German designer of furnaces) show a construction equally erroneous (Figs. 56 and 57). Here the hot gases are conducted into the checker chamber, not at the top, but below the

FIG. 58.



upper part of the chamber and cannot pass out to the flues, while the upper portion of the checker does not do any work at all and forms a pocket filled with immobile heated gas.

Fig. 58 shows a horizontal regenerator constructed in a rational

correction or change which should be made. [This change, however, does not affect the frictional resistance of this type of checker work.] The hot gases enter the top part of the chamber and leave at the bottom; the height of the chamber h may be calculated

according to the formula of Professor Yesmann in the same manner as the height of the flues leading to the reversing valves; in this way it is possible to design these chambers of such a height that the lower free surface of the current of gases will be at the level of the bottom of the chamber.

Such a regenerator heats the gas nicely (Fig. 56), but it works very inefficiently, because the heated gases are very light and the hottest gases are trapped in the